

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Stanislaw D. Augustynowicz et al

Serial No.: 09/939,286

Docket No.: KSC-12092

Filed: 08/20/2001

Examiner: Alicia A. Chevalier

For: THERMAL INSULATION
SYSTEM AND METHOD

Art Unit: 1772

AMENDMENT A

Commissioner of Patents and Trademarks
Washington D. C. 20231

Sir: In response to the Office Action mailed February 6, 2003 please amend the Application as follows:

IN THE TITLE

Please amend the title to read, "THERMAL INSULATION SYSTEMS".

IN THE SPECIFICATION:

On page 4, please replace the paragraph beginning on line 3 with the following:

There is a strong dependence of the heat-transfer coefficient, h_r , on temperature as an object's radiation, and thus the heat transfer medium, will depend largely on its temperature. Although radiation transfer may occur through gases, liquids or solids, these media will absorb or reflect some or all of the energy. Accordingly, radiation transfer occurs most efficiently through an empty, vacuous space.

On page 21, please replace the paragraph beginning on line 26 with the following:

Comparative studies of MLI and thermal insulation systems of the invention show that similar insulative properties can be obtained at high vacuum levels, while superior results are achieved at soft vacuum levels. The following Table 1 shows the values obtained with a typical MLI system (aluminum, foil and fiberglass paper, 40 layers) having about 46 layers per inch in comparison with three thermal insulation systems of the invention (#1, #2 and #3) having about 18 layers per inch and a fill layer of fumed silica. Variations within thermal insulation systems #1, #2 and #3 are expected due to differing final densities of powder.